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# Brsk1 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14473

## Product Information

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| **Application** | WB |
| **Primary Accession** | Q5RJI5 |
| **Other Accession** | NM_001003920, NP_001003920 |
| **Reactivity** | Human, Mouse, Rat, Dog, Guinea Pig, Horse, Bovine |
| **Predicted** | Human, Mouse, Rat, Pig, Dog, Guinea Pig, Horse, Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 85155 |

## Additional Information

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| **Gene ID** | 381979 |
| **Alias Symbol** | Gm1100, MGC99905, SAD-B, SADB |
| **Other Names** | Serine/threonine-protein kinase BRSK1, 2.7.11.1, 2.7.11.26, Brain-specific serine/threonine-protein kinase 1, BR serine/threonine-protein kinase 1, Serine/threonine-protein kinase SAD-B, Brsk1, Gm1100, Sadb |
| **Format** | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. |
| **Reconstitution & Storage** | Add 50 ul of distilled water. Final anti-Brsk1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles. |
| **Precautions** | Brsk1 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Brsk1 |
| **Synonyms** | Gm1100, Sadb |
| **Function** | Serine/threonine-protein kinase that plays a key role in polarization of neurons and centrosome duplication. Phosphorylates CDC25B, CDC25C, MAPT/TAU, RIMS1, TUBG1, TUBG2 and WEE1. Following phosphorylation and activation by STK11/LKB1, acts as a key regulator of polarization of cortical neurons, probably by mediating phosphorylation of microtubule-associated proteins such as MAPT/TAU at 'Thr-504' and 'Ser-554'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in postmitotic |

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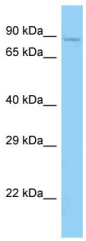
| | neurons, leading to down-regulate WEE1 activity in polarized neurons. In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1. Also acts as a positive regulator of centrosome duplication by mediating phosphorylation of gamma-tubulin (TUBG1 and TUBG2) at 'Ser-131', leading to translocation of gamma-tubulin and its associated proteins to the centrosome. Involved in the UV-induced DNA damage checkpoint response, probably by inhibiting CDK1 activity through phosphorylation and activation of WEE1, and inhibition of CDC25B and CDC25C. |
| **Cellular Location** | Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Synapse {ECO:0000250\|UniProtKB:B2DD29}. Presynaptic active zone {ECO:0000250\|UniProtKB:B2DD29}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250\|UniProtKB:B2DD29} Note=Nuclear in the absence of DNA damage. Translocated to the nucleus in response to UV- or MMS-induced DNA damage (By similarity) |
| **Tissue Location** | Present in the gray matter of the brain and spinal cord (at protein level). Expressed in the nervous system, distributed within the brain and spinal cord of embryonic and postnatal animals |

## References


Kishi M.,et al.Science 307:929-932(2005).
Alvarado-Kristensson M.,et al.Nat. Cell Biol. 11:1081-1092(2009).
Barnes A.P.,et al.Cell 129:549-563(2007).
Muller M.,et al.J. Cell Sci. 123:286-294(2010).


## Images




WB Suggested Anti-Brsk1 Antibody Titration: 1.0 µg/ml
Positive Control: Mouse Heart